Message

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NRDC: EPA "Action" on Toxic Chemicals: Thanks, but No Thanks

https://www.nrdc.org/experts/daniel-rosenberg/epa-action-toxic-chemicals-thanks-no-thanks

November 27, 2019 Daniel Rosenberg

The Trump EPA has again shown it intends to do nothing meaningful to protect the public from the whole class of Teflon "forever" chemicals known as PFAS.

The chemicals are associated with a wide range of health effects including cancer of the kidneys and testicles, thyroid disease, pregnancy-related hypertension, damage to the liver and immune system and developmental

harm. And, thanks to the carelessness and callousness of Dupont, "Chemours" (a Dupont spinoff), 3M and others, the drinking water of millions of Americans across the country is now polluted with these chemicals. They're also found in commercial and consumer products including food packaging, carpeting, clothing, and even some dental floss.

As the scope of the crisis has expanded, some states have scrambled to respond by adopting their own drinking water standards and passing broader legislation – including Washington's ban on PFAS in food packaging and in fire fighting foam (a major source of drinking water contamination). Congress is considering multiple pieces of legislation to address the problem (more on this below). And, a new movie starring Mark Ruffalo, "Dark Waters," chronicles the story of Rob Bilott, a corporate lawyer from Ohio who took on DuPont in court on behalf of West Virginia citizens harmed by PFAS dumped in the Ohio River.

For the Trump administration, "action" on PFAS means:

- **Suppressing a government report** that shows PFAS are dangerous at lower levels than EPA's current estimates (we're talking about in the single digit parts per trillion levels);
- **Proposing to radically alter EPA's science policies** to exclude epidemiological studies and animal studies that could shed more light on harm caused by PFAS and other chemicals;
- **Nominating an industry consultant to run EPA's Toxics Office** – Michael Dourson, who advised DuPont on PFAS in West Virginia (a nomination withdrawn upon bipartisan opposition);
- **Threatening to veto legislation that would take critical steps to address the PFAS crisis** including:
  - phasing out the use of PFAS in firefighting foam at Defense Department installations;
  - designating the chemicals as "hazardous," which would compel the Defense Department to clean up massive contamination for which it is responsible (it uses a lot of the PFAS-contaminated foam); and,
  - establishing national monitoring through the United States Geological Survey, just to name a few highly beneficial provisions.

And this week, the latest: EPA has announced an "Advance Notice of Proposed Rulemaking" – ostensibly to take public comment on which of the nearly 5,000 PFAS chemicals should be added to the **Toxics Release Inventory**, which requires industry to report on its releases of included chemicals to air, water, or land (correct answer: all of them).

As my NRDC colleague Jon Devine says, the ANPRM is "the perfect administrative go-to when you want to look like you're doing something, but don't want to actually do something." Exactly.

EPA is spinning this diversion as an "important step to advance" the agency's PFAS action plan. Like the rest of the Trump EPA's 'Action' Plan, this is designed to *look* like EPA action to address the PFAS crisis. In fact, the agency is doing everything it can *not* to act, and to stop others from doing so. This "important step" is a transparent attempt to sway Members of Congress to vote against the legislation that will *compel* EPA to take concrete action on PFAS. Nobody should be fooled.

And this comes less than a week after EPA touted a ban on the consumer use and sale of the toxic chemical **methylene chloride** in paint strippers. The ban was finalized in March but just took effect. It's an important public health step that will make the public safer from exposure to a deadly chemical. But, by itself, the consumer ban is not enough to fully protect the public, or to comply with the requirements of the Toxic Substances Control Act (TSCA). EPA is still failing to sufficiently protect people from methylene chloride because the Trump

EPA refuses to take meaningful action to protect the public.

Here's what you need to know about **EPA's failure to fulfill its duty on methylene chloride**:

Methylene chloride is an acutely lethal chemical. It releases toxic fumes that turn into carbon monoxide in the lungs, killing users in as few as ten minutes. Chronic exposure is linked to liver toxicity, cancer, and harm to the central nervous system. In January 2017, the Obama administration proposed banning the use of methylene chloride and another chemical, n-methylpyrollidone (NMP) in paint strippers. Methylene chloride was already known to have killed more than 50 people—an estimate widely understood to undercount the actual deaths it has caused. NMP is a common substitute for methylene chloride, which is associated with reproductive harm. Safer and effective substitutes are available for both chemicals. **The Trump EPA shelved the proposed ban on methylene chloride and NMP** for nearly two years, during which time at least four more people are known to have been died from exposure to paint strippers containing methylene chloride.

However, in 2018, NRDC, Safer Chemicals Healthy Families (SCHF), and other organizations launched a **citizens' campaign to pressure large retailers to stop carrying paint strippers** containing methylene chloride or NMP. The campaign was a tremendous success: by the end of 2018, a dozen major retailers including Lowe's, Home Depot, Sherwin-Williams, and Wal-Mart had pledged to stop carrying paint strippers containing either chemical by the end of the year. EPA did nothing itself to encourage retailers to take action to

protect the public from methylene chloride or NMP, despite having already concluded that both chemicals used in paint strippers posed an unreasonable risk to health.

Meanwhile, NRDC, the Labor Council for Latin American Advancement (LACLA) represented by Earthjustice and others **sued EPA to compel the Trump EPA to finalize the proposed ban** on consumer and commercial uses of methylene chloride in paint strippers.

In the face of imminent litigation, and the rapid retail abandonment of both methylene chloride and NMP in paint strippers, EPA finally acted. But it didn't do what was necessary to fully protect the public. While EPA finalized the ban on consumer sales and uses of methylene chloride, it **declined to finalize the ban on commercial use**, a decision that leaves workers – who are the most likely to be harmed by methylene chloride – unprotected. It also fails to protect anyone near a worker using methylene chloride—for example, someone living near a worker using the chemical. And the agency took no action on NMP, despite its recognized dangers.

Just as it has done on PFAS, EPA announced – wait for it – an Advance Notice of Proposed Rulemaking! That's right, an ANPRM to take public comment on other options besides a ban on commercial use – including a possible program on training and licensing commercial users of methylene chloride. That's interesting, because EPA had already considered and rejected that as a viable approach to protecting the public when it proposed the ban back in 2017. Again, the Trump EPA used this administrative tool as a stalling tactic, pretending to at least consider taking action, rather than *actually doing something* to address an immediate, ongoing and serious threat to public health. The same groups that sued EPA previously on methylene chloride have sued yet again to compel EPA to finish the job and protect the public.

These do-nothing policies are what one would expect from a chemical industry lobbyist who wanted to simulate caring about the harm caused by toxic chemicals and protecting the public. Both "actions" are undoubtedly the brainchild of chemical industry lobbyist Nancy Beck, who ran EPA's Toxics office from 2017, until moving to the White House recently to spearhead the Trump Administration's opposition to anything that actually protects people from PFAS chemicals. They are the industry-captured government version of the chemical industry's Delay Game strategy: take all steps necessary to prevent or impede regulation of the industry's toxic and poisonous products for as long as possible.

It is a cynical approach to policy that it is wrecking a system intended to protect the public. The chemical industry's way is a callous disregard for the pain and suffering of people all over the country (and the world) – whose stories wind up in movies like *Silkwood*, *Erin Brockovich*, *A Civil Action* and, now, *Dark Waters*.

WGBH: Thirty Years Later, Massachusetts Attorney General Renews Calls For Asbestos Ban

https://www.wgbh.org/news/local-news/2019/11/27/thirty-years-later-massachusetts-attorney-general-renews-calls-for-asbestos-ban

For Emily Ward, everything started with a chronic cough.

It was 2012 and treatment for pneumonia did nothing. So, her doctor sent her to the hospital to get images of her lungs taken. She was driving back to her home in Cornish, Maine, when her doctor rang.

"I was almost home and he calls me on my cell phone and says, 'Um, I think you better go back to the hospital. Your lung has collapsed,'" Ward, 70, recalled.

After a battery of tests, doctors determined that Ward had mesothelioma, a rare form of cancer that's almost always caused by exposure to asbestos, a naturally occurring fiber that is useful in various construction products but can cause long-term, life-threatening ailments if inhaled.

Ward started treatment at Boston's Brigham and Women's Hospital and at the Dana-Farber Cancer Institute. She also started working with lawyers to figure out where she was exposed to asbestos. They don't know for sure, but Ward — who is a nurse — says they have a good guess.

In the 1970s, Ward worked at a hospital that was undergoing a major renovation. She had to clock in near the construction side and then walk past it month after month to get to her unit.

"There was plastic sheeting up, and stuff like that, but it was dusty, dirty. We were going through the basement," Ward said.

The link between asbestos fibers and life-threatening respiratory ailments, including mesothelioma, lung cancer and asbestosis, came to light in the late 1960s, '70s and '80s. There was a wave of lawsuits that bankrupt several companies, and efforts at regulations soon followed.

In the decades since, the use of asbestos in building materials has decreased significantly in the U.S. but has not been federally banned — as it has in more than 50 other countries since the early 1970s. Massachusetts Attorney General Maura Healey took a leading role in the fight against asbestos three years ago by launching an initiative to reduce exposure to it nationally and locally. A report on her efforts, released Monday, outlines the steps she has taken, including calling on Congress to ban asbestos.

An estimated 12,000 to 15,000 people nationwide die from asbestos exposure each year, according to the EWG Action Fund.

In 1989, the United States came the closest it has ever come to an outright federal ban on asbestos. The Environmental Protection Agency (EPA) issued the Asbestos Ban and Phase-Out Rule, which would have banned asbestos-containing products. But manufacturers who used asbestos filed a lawsuit, and the ban was struck down in 1991. The courts said the EPA hadn't proven that this was the "least burdensome alternative." The EPA, under the administration of George H. W. Bush, did not appeal the ruling.

"Ever since the early 90s, it's been a tug of war between industry interests on one side and people advocating for public health on the other side," said Daniel King of The Mesothelioma Center at Asbestos.com. "And there's been a stalemate, essentially."

The power and risks of asbestos

For the better part of the 1900s, asbestos was widely used in construction materials because the naturally occurring fiber makes things stronger.

"It's essentially a type of stone that you can pull apart into natural fibers," said King. "You can make asbestos paper, it's fireproof. You can make asbestos cloth, it's fireproof. You can mix asbestos into cement, it makes it more durable. You can mix it into all types of insulation, it's a great insulator."

But when it's inside a human, that's not good.

"When you look at this through a microscope, these asbestos fibers are like needles that can get lodged inside a person's lung tissue and other parts of their body," he said.

Once inside a person, the asbestos fibers take decades to cause health consequences. The time between first exposure and the development of cancer is anywhere between 20 and 70 years, King said.

Within the manufacturing industry, the risks of asbestos exposure became evident in the first half of the 1900s but "the dangers of asbestos exposure were covered up in the United States for decades," King said.

It was only in the '60s, '70s, and '80s with the onslaught of health issues and lawsuits, he said, that the use of asbestos began to decrease significantly.

"There are still many legal uses of asbestos and the chief reason that we are not using asbestos as much in American industries is because of legal liabilities associated with it, rather than the regulatory environment," King said.

More than 50 countries have banned or restricted the use of asbestos, including formerly big producers such as Canada and Brazil. And Healey would like to see the U.S. join them.

Combating asbestos locally and nationally

Three years ago, Healey launched an initiative to protect residents against future asbestos use and all the asbestos that's already in our buildings.

"Basically, what we are trying to do is three things: Educate the public about asbestos safety; we are taking action against landlords or contractors who break the law; and we're advocating for strong federal protections," Healey said.

The attorney general's office has put together the first public database of which school buildings — public and private — have asbestos, so that parents and teachers can ask questions and make sure any renovations are done with the right precautions.

She's also brought dozens of cases against those who are doing remodeling or demolition without proper asbestos remediation.

Healey said vigilance is especially important here.

"Massachusetts is a wonderful place, but we've got a lot of old buildings, old structures, old homes. And so, there's maybe a greater likelihood of asbestos appearing in places," she said.

On the federal front, she led a coalition of states in calling on Congress to ban asbestos in July. She also led a coalition of states in suing the EPA, saying the agency failed to require the chemical industry to report information necessary to regulate asbestos.

The American Chemistry Council advocates for asbestos producers, and generally calls for less regulation. In a statement to WGBH News, the council said, "It is important to allow the EPA to both complete its risk evaluation and implement any necessary risk management."

In May, Michael Walls, the vice president of regulatory and technical affairs for the ACC, testified before Congress that the council uses asbestos safely and, in many cases, within a highly regulated framework. Walls also said human exposures are prevented by the rigorous use of personal protective equipment.

But that's not reassuring for Healey, especially under the EPA's current leadership, she said.

"A lot of what the Trump administration does is murky, and certainly when it comes to actions by the EPA, it's without any regard to science or facts or recommendations of their own internal scientists," Healey said.

And in the meantime, she said, there's work to be done locally to reduce the risk of exposure to asbestos.

EDF: While harder to discern, another EPA risk evaluation severely understates risk, this time for methylene chloride

http://blogs.edf.org/health/2019/11/27/while-harder-to-discern-another-epa-risk-evaluation-severely-understates-risk-this-time-for-methylene-chloride/

« Illinois poised to strictly limit partial lead service line replacement: How does it compare to Michigan and proposed EPA rules?

By Richard Denison / Bio / Published: November 27, 2019

Richard Denison, Ph.D., is a Lead Senior Scientist.

When EPA released the draft of its risk evaluation for methylene chloride at the end of last month, some were surprised that EPA had identified numerous unreasonable risks presented under a variety of the chemical's conditions of use.

In an earlier post, EDF provided some context, noting how dangerous the chemical is and raising initial concerns that EPA was once again excluding known uses and exposures, making unsupported assumptions, and

applying inappropriate risk benchmarks that were once again leading it to significantly understate the actual risks posed by methylene chloride.

Four weeks later, EDF has confirmed these concerns in spades. Last night we filed 84 pages of comments on the draft risk evaluation, for consideration by EPA's Scientific Advisory Committee on Chemicals (SACC), which will meet next week to peer review the draft.

EDF's deep dive into the draft demonstrates that EPA has employed a host of unwarranted and unsupported assumptions and methodological approaches that lead it to either avoid identifying unreasonable risk when it should have, or to understate the extent and magnitude of the unreasonable risks it did identify. Below we summarize some of the major concerns, which are addressed in detail in our comments.

Underestimation of occupational risks: Of particular concern is the extent to which EPA has underestimated occupational risks. As part of its review, EDF conducted extensive analyses of each of the hundreds of individual risk estimates EPA has made in this draft risk evaluation. Along with our written comments, we submitted a spreadsheet to share the results with the SACC and others. Our analyses reveal and quantify five major ways in which EPA has underestimated occupational risks, including through: its unsupported assumptions regarding worker use of personal protective equipment in many scenarios; its use of a cancer risk benchmark level for workers that fails to protect them as a vulnerable subpopulation as required by TSCA; its failure to consider combined exposures of workers from multiple sources; its failure to identify unreasonable risks for the most highly exposed, and hence most vulnerable, of occupational non-users (ONUs); and dismissal of numerous unreasonable risk findings by invoking "uncertainty" or unwarranted use of PPE, or without any explanation at all.

To give you a sense of what we found, let me provide two examples:

First, EPA's assumption that workers would always wear effective respiratory protection under many conditions of use dramatically reduced how often it found risk and how much risk it found.

For the nearly 30 conditions of use where EPA assumed respirators workers always wear respirators, that assumption led EPA to *downgrade 74% of its risk estimates* for the various health effects it examined. Absent that assumption, EPA would have either: identified more unreasonable risks than it did; or would have found those unreasonable risks it did identify to be much higher.

Second, EPA's decision to use a very high cancer risk benchmark for workers of 1 in 10,000, instead of the 10- or 100-fold more protective population-level standards EPA virtually always uses, also radically altered the outcome of EPA's inhalation risk characterizations.

Across all of methylene chloride's 65 conditions of use entailing worker exposures, EPA found that its inhalation risk estimates *exceeded EPA's chosen cancer risk benchmark of 1 in 10,000 a total of 88 times*. In contrast, our analysis of EPA's own risk estimates found that, relative to EPA's 1 in 10,000 cancer risk benchmark:

- a cancer risk benchmark of 1 in 100,000 was exceeded an *additional* **146 times, for a total of 234 exceedances**; and
- a cancer risk benchmark of 1 in 1,000,000 was exceeded an *additional* **214 times, for a total of 302 exceedances**.

These data show that EPA has dramatically understated the risks to worker from inhalation of methylene chloride.

Other major areas of concern we address in our comments include:

- Exclusion of known uses and exposures: Once again, EPA has abdicated its responsibility under TSCA to identify and evaluate the risks the chemical presents to the general population, by excluding from its risk evaluation conditions of use and exposures that are known or reasonably foreseen, including exposures from releases of methylene chloride to air, water, and land.
- Insufficient consideration of vulnerable subpopulations: EPA has not met its mandatory duty under TSCA to thoroughly identify and evaluate the risks to vulnerable subpopulations. These include subpopulations that are genetically susceptible to methylene chloride exposure; the developing fetus who may be exposed through placental transfer of the chemical; and consumers and others who may be at risk of cancer from acute exposures.
- Dismissal of epidemiological evidence: EPA has sought to downplay or dismiss epidemiological evidence through a series of unsupported, misleading arguments and the application of flawed, biased systematic review criteria that do not represent best practice.
- Failure to appropriately account for uncertainty: EPA has neither acknowledged nor addressed the major uncertainties in the available hazard data, including by not applying or underestimating necessary uncertainty factors when deriving its benchmark risk values. Ironically, EPA invokes uncertainty as an unwarranted basis for ignoring risks it has identified to the environment and to ONUs, and for not accounting for combined exposures to methylene chloride.
- Failure to use its authority to address data gaps and uncertainties: Even as it invokes lack of data and uncertainty as reasons to avoid finding risks, EPA has utterly failed to utilize the enhanced authorities Congress granted it in 2016 to ensure that it has or obtains robust information on methylene chloride's uses, hazards and exposures.

The SACC needs to thoroughly assess the scientific consequences of EPA's unsupported assumptions, selection of benchmarks, and methodological choices. The fact that EPA found unreasonable risks more often than in other risk evaluations cannot be used to obscure the fact that EPA has significantly underestimated methylene chloride's risks to workers, the general population, consumers, vulnerable subpopulations, and the environment.

If not corrected, this will have a real impact on human health and the environment. If EPA's approaches erase unreasonable risks, then EPA will not regulate the chemical under TSCA and will forgo its only opportunity to ensure this chemical's risks are mitigated. And if EPA understates the extent and magnitude of the unreasonable risks it does identify, then any subsequent regulation EPA promulgates under TSCA will be under-protective.

E&E: How to limit toxic exposure from holiday feasts

https://www.eenews.net/greenwire/2019/11/27/stories/1061662289

Ariana Figueroa, E&E News reporter Published: Wednesday, November 27, 2019

You might not be able to avoid the toxic relative at your dinner table this Thanksgiving, but you can try to limit your exposure to toxic chemicals in this year's feast.

A report released last week evaluates retailer efforts to eliminate toxic chemicals, including in food packaging. Touted as the largest-ever study of its kind, the study rates retailers for their chemical safety policies.

"For the first time ever, major retail grocers and restaurants are focused on eliminating classes of toxic chemicals, such as per- and polyfluoroalkyl substances (PFAS), ortho-phthalates and bisphenols from food packaging materials, which have been found to be a source of exposure to harmful contaminants," said a press release from Safer Chemicals, Healthy Families, calling the development a "major consumer health win."

PFAS are used in a range of consumer products because of their nonstick and water-resistant properties. Often used in food packaging, the chemicals are linked to multiple health problems such as birth defects, thyroid issues and some cancers.

Mike Belliveau, executive director of the Environmental Health Strategy Center and a report co-author, said, "We applaud retail market leaders for protecting public health and the environment while our federal government refuses to act. Eliminating toxic chemicals — like PFAS and phthalates — from food packaging meets growing customer demand for greater food safety."

Liz Hitchcock, acting director of Safer Chemicals, Healthy Families, said she has heard concerns from people about using pans coated with nonstick properties for cooking big holiday dinners.

Concern about kitchenware containing PFAS has even made ripples on Capitol Hill.

Rep. Darren Soto (D-Fla.) introduced H.R. 2566, which would require EPA to revise the Safer Choice Standard to provide labels for pots, pans and other cooking utensils that do not contain PFAS. It passed through the Energy and Commerce Committee in a PFAS package that is on its way to the House floor for a vote (*E&E Daily*, Nov. 21).

Other health organizations, such as the Center for Environmental Health, warn people about using canned food such as cranberries and corn, as studies have found bisphenol A, or BPA, in them. BPA can be found in some plastics, and studies have linked the chemicals to disrupting hormones.

National Law Review: EPA Settles Two Cases Regarding Unregistered and Misbranded Pesticides

https://www.natlawreview.com/article/epa-settles-two-cases-regarding-unregistered-and-misbranded-pesticides

Wednesday, November 27, 2019

The U.S. Environmental Protection Agency (EPA) recently settled two cases involving allegations of non-compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Although the Consent Agreement and Final Orders (CAFO) and Stop Sale, Use or Removal Orders (SSURO) issued in these cases are not yet available online, the penalty amounts at issue -- $200,000 and $1,489,000 -- reflect increased enforcement in targeted areas and EPA's willingness to seek and obtain heroic penalties.

On November 18, 2019, EPA Region 9 announced that Decon7 Systems LLC (Decon7) would pay a $200,000 civil penalty in a settlement related to FIFRA violations. Specifically, EPA found that Decon 7:

- Sold and distributed two products that were not registered with EPA. These products, "D7 Part 1" and "D7 Part 2," combined to disinfect hard nonporous surfaces. EPA regulations (40 C.F.R. § 152.15) set forth the conditions under which EPA will consider a product to be a pesticide product required to be registered, including but not limited to products containing certain "active" ingredients and/or making claims to kill, repel, or "disinfect" certain pests (e.g., germs, bacteria, viruses).
- Sold and distributed pesticides that were labeled with false and misleading claims regarding safety and efficacy. In addition to misleading efficacy claims to kill all bacteria, viruses, and fungi, EPA states:

  The products also had false and misleading safety claims, which created the incorrect impression that the products were noncorrosive and nontoxic. The products' formulations in fact could have caused skin burns and irreversible eye damage. The products' labeling also claimed the products were used by various federal government agencies to clean up buildings following anthrax attacks, implying that the federal government recommends or endorses their use.
- Exported unregistered pesticides that did not include necessary notifications and failed to comply with reporting obligations following a SSURO issued to the company in 2018.

On October 31, 2019, EPA Region 3 announced that it reached an agreement with AFCO C&S, LLC (AFCO), a chemical company located in Chambersburg, Pennsylvania, to resolve alleged FIFRA violations. AFCO agreed to pay a $1,489,000 penalty to settle the alleged violations that involved the use of 12 products to clean and sanitize food and beverage processing facilities. EPA alleges that AFCO sold and distributed ten unregistered pesticide products, a misbranded product, and a product that made claims beyond those permitted by its FIFRA registration.

The settlement also addresses violations of a SSURO that EPA issued to AFCO on July 13, 2018. AFCO engaged in sales and distributions that violated this order. AFCO has since discontinued sales of all of the involved products, except for one registered product.

Mauitimes: Monsanto to Pay $10.2M for Illegal Pesticide Use: Kihei residents and activists warned about violations for years

https://mauitime.com/news/politics/monsanto-to-pay-10-2m-for-illegal-pesticide-use-kihei-residents-and-activists-warned-about-violations-for-years/

November 26, 2019 by Axel Beers Leave a Comment

The year was 2014, and Maui was in the middle of a political revolution: For the first time in the county's history, a voters' initiative made it onto the ballot, signalling an unprecedented effort of grassroots activism to directly govern with community-drafted and -approved legislation.

The issue was genetically modified organisms (GMOs) and the biotechnology-agrochemical corporations that experiment with them on the islands. The bill – which garnered public support and later passed, only to be invalidated in court – was the so-called GMO Moratorium (or "farming ban," as the Dow and Monsanto-funded group Citizens Against the Maui Farming Ban disingenuously called it).

It was a time when the agrochemical giants who set up shop in Maui County – where the year-round growing season makes perfect conditions for continual chemical testing and seed production – were supposed to be on their best behavior. Monsanto and Dow invested millions in their PR efforts to battle the GMO Moratorium, much of it spent on glossy mail-outs to tout its 600 local employees and the economic benefits that biotechnology brought to Maui.

But it was also a time when Monsanto was breaking the law.

That's right: At the same time that Monsanto and its surrogates were publishing reports saying that "agricultural biotechnology is proven safe" and that "the safety of our employees, the communities where we operate, our customers, consumers, and the environment will be our highest priority," the company was doing exactly the opposite.

Last week, on Nov. 21, Monsanto admitted to illegally spraying, storing, and transporting the banned pesticide Penncap-M at Maui County locations in 2014. At the company's Valley Farm location on Maui, workers were sent into fields just seven days after the chemical was sprayed. That would have violated the rules even before Penncap-M was banned, as the pesticide previously had an REI (Re-Entry Interval, or the time after pesticide application when entry into the area is restricted) of 31 days. According to Cornell University's Pesticide Management Education Program,Penncap-M is "moderately hazardous" to birds, fish, and beneficial insects, and hazardous to bees.

"The illegal conduct in this case posed a threat to the environment, surrounding communities, and Monsanto workers," said US attorney Nick Hanna of the Central District of California, which handled the case. "Federal laws and regulations impose a clear duty on every user of regulated and dangerous chemicals to ensure the products are safely stored, transported, and used."

In a plea agreement, Monsanto agreed to pay $10.2 million in fines: $6.2 million in criminal penalties, and $4 million as "community service payments" split between Hawai'i's Department of Agriculture, Department of Land and Natural Resources, Department of Health Hazardous Waste Branch, DOH Environmental Management Division, and Kaho'olawe Island Reserve Commission.

The company will spend two years on probation, during which it will have to develop, maintain, and implement a compliance program requiring third-party audits every six months for each Hawai'i location. The compliance program will have to be implemented within 90 days of Monsanto's sentencing date, which will likely be in December, said US Attorney's Office spokesperson Thom Mrozek.

"We take this very seriously and accept full responsibility for our actions," said Bayer vice president of communications for North America, Darren Wallis.

State Senator Roz Baker (D-South and West Maui) had tough words for the company. Baker told KHON2 last week that she's "hoping Monsanto will do the right thing, pay it, not quibble, and stop using these pesticides or get out of Maui… They knew they shouldn't have used them, they did it anyway. I don't know how they ever earn the communities [sic] trust again."

But for some, her words are too little, too late.

Kihei resident Deb Mader has been advocating for pesticide legislation since 2013 and was made aware of Monsanto's illegal use of Penncap-M back in 2014, when she was given leaked copies of the company's spray logs which listed the banned chemical.

After the GMO Moratorium was challenged in court and activists' hopes for stronger pesticide regulations were put on hold, Mader and others shifted their focus to state-level advocacy for similar causes, including pesticide buffer zones and mandatory disclosure of chemicals applied to fields. Part of their efforts included sharing the data of Monsanto's illegal pesticide use at public testimony and with state officials, including Sen. Baker and then-head of the state Department of Agriculture, Scott Enright.

"We can't just sit and say they [pesticide applicators] went to school, they're very well versed, we trust them, they're fine. When in reality, it [compliance] is just not happening," Mader is heard saying in an audio recording of a March 2015 meeting with Baker. The discussion was about 2015's SB793, a bill which would have established mandatory reporting for pesticide use. A month before their meeting, in February 2015, the bill was referred to a joint meeting of Baker's Commerce, Consumer Protection, and Health Committee and Sen. Jill Tokuda's Ways and Means Committee, where it was never scheduled for a hearing and died in legislative limbo.

After placing the blame on Tokuda for not hearing SB793, Baker defended the chemical-sprayers: "I'm sure when there are incidents, they speak with their folks. I guess the thing that bothers me is that people assume people do it very cavalierly, and do it on purpose. I just don't think that's true."

A year later, Mader presented the same spray information at a Kihei town hall hosted by Baker and Enright. "Monsanto and the biotech companies are the most profitable agricultural entities we've ever had in the state," Enright responded. "The equipment that they use is state of the art… Nobody in the history of the state has ever applied pesticides better than the biotech companies." Enright chalked the violation up to human error and vowed to report any future violations the community discovered.

Mader wasn't the only one sounding the alarm. In written testimony on SB793, Maui resident Joe Ritter said, "On Maui, nerve agents are being used by Monsanto. The chemical in question is called Methyl Parathion [aka Penncap-M], which is an ACHE, an acetylcholinesterase inhibitor. The chemical action and poison mechanism

of the nerve agent is identical in mechanism to the chemical warfare agents Sarin gas and VX gas… M-Parathion is sprayed on fields I drive by every day!" Attached to his testimony was a photo of the spray log.

In 2015 there were multiple bills considered to more strictly regulate pesticides. Of the three senate bills I came across that would have required mandatory notice, reporting, or disclosure, none passed. And whenever the bills came to Baker's committee, she was conveniently excused from the vote. In a *Honolulu Civil Beat* article from the era, Baker's reputation preceded her: "Last year, Baker opposed bills targeting the seed industry," wrote reporter Anita Hofschneider. In the 2014 to 2016 period, Monsanto and Syngenta are listed as donors to Roz Baker's candidate committee by the Hawai'i Campaign Spending Commission.

Legislative action to establish buffer zones or mandatory reporting stalled until 2018, when SB3095 was passed. The bill established mandatory reporting and buffer zones around schools. The first reports on the use of "restricted use pesticides" are due at the end of January 2020.

Autumn Ness, now the director of the Hawai'i Organic Land Management Program of Beyond Pesticides, was also aware of Monsanto's illegal use of Penncap-M years before the company admitted it last week. She saw the spray log back when she was involved in advocacy for the GMO Moratorium.

Over the phone, Ness sounded unsurprised yet frustrated at the pace of progress. The organization she works for, Beyond Pesticides, recently lobbied the Hawai'i County Council to vote to ban herbicides on county land. Ness sees the subsequent 6-3 vote as a win, but recognized a pervasive attitude among elected officials which stacks the deck against activists like her and Mader.

"Even when we have the facts in front of us, whatever the HCIA [Hawai'i Crop Improvement Association] and the Farm Bureau says is truth and they don't have to prove anything they're saying," she said. "We, the 'grubby activists,' are left trying to triple check all of our stuff and even when we do submit evidence, they [legislators] don't want to hear it. That's what we go through."

Terez Amato, who ran against Baker in 2018, has been a part of the effort for better pesticide management, and also saw the 2014 spray log, agreed. "We compiled information on restricted pesticide spraying and wind speed and subsequently presented it to the EPA, to Sen. Roz Baker, to the Hawai'i Departments of Agriculture and Department of Health, as well as to the head of Monsanto at a shareholder meeting," she said. "Some laughed. All ignored the facts until recently."

As of press time, Sen. Baker did not respond to a request for comment for this story.